

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the matter of)
)
Inquiry Regarding Carrier Current) ET Docket No. 03-104
Systems, including Broadband over)
Powerline Systems)

To: The Commission

**REPLY COMMENTS OF
W. J. J. HOGE
TO THE COMMENTS OF THE NATIONAL
TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
DATED AUGUST 13, 2003**

By: W. J. J. Hoge
20 Ridge Road
Westminster, Maryland 21157

1. I am a licensed Amateur Radio Operator. My call sign is W3JJH. I received a Bachelor of Engineering degree in Electrical Engineering from Vanderbilt University in 1970. I have been employed in engineering design and management in the broadcast and satellite communications industries and in other areas related to electromagnetic compatibility and interference for over 30 years.
2. I wish to strongly concur with the following point made in the NTIA's comments to the Commission:

NOTWITHSTANDING BPL'S POTENTIAL BENEFITS, THE COMMISSION MUST ENSURE THAT OTHER COMMUNICATIONS SERVICES, ESPECIALLY FEDERAL GOVERNMENT OPERATIONS, ARE ADEQUATELY PROTECTED FROM UNACCEPTABLE INTERFERENCE.

In tailoring its rules to promote BPL deployment, the Commission must be certain to provide all communications stakeholders with adequate protections against BPL emissions that may cause unacceptable radio frequency interference. The federal

government has extensive operations that potentially could be affected by BPL systems. Indeed, federal government agencies have over eighteen thousand (18,000) frequency assignments in the 1.7 - 80 MHz spectrum in which BPL systems may unintentionally radiate. These assignments accommodate many tens of thousands of receivers operating throughout the United States, in many cases in close proximity to potential sites for "In-House" and "Access" BPL systems.

3. I am a user of several of the Federal Government's HF radio services such as the National Institute of Standards and Technology's time and frequency standard station WWV. It is vital that such services be protected from interference from BPL. Thus, BPL operation should be prohibited in the vicinity of 2.5, 5.0, 10.0, 15.0, and 20.0 MHz in order to protect WWV and WWVH.

4. I agree with the general outline of the NTIA's proposed measuring method presented in their Appendix A. In particular, I agree that performance measurements should be made to at least 1 GHz.

5. Under the present Part 15 Rules, BPL equipment would be "verified" as compliant. This may not be adequate under a testing scheme as proposed by NTIA. Because of the variability of each system's effective antenna structure, the Commission should consider requiring proof of performance measurements for each BPL installation.

6. The NTIA states that it is doing modeling to propose new field strength limits for BPL operation. The present Part 15 levels assume a point source of noise. BPL lines are large, distributed, and efficient radiators. A reduction from 30 $\mu\text{V}/\text{m}$ to 300 nV/m for the HF range would be a drastic reduction from the current requirement but would still result in a significant increase in electromagnetic smog.

7. The Commission's goal of improved and expanded Broadband Internet access is definitely in the public interest. However, allowing BPL to cripple existing over-the-air services is not.

Dated: 15 August, 2003